

# Crittercam Educator Activities

## Sharks



### GEOGRAPHY STANDARD 16 SCIENCE STANDARDS C, F

*Students explore shark diversity by matching drawings of shark teeth to drawings of the sharks themselves. Students can work individually or in small groups.*

### Background on the Critters:

Sharks are among the most ancient species on Earth. The first sharks lived more than 400 million years ago—about 200 million years before dinosaurs walked the Earth. Today there are more than 350 different species. The smallest, the spined pygmy shark, is about eight to ten inches long. The largest, the whale shark, grows to 50 feet long—the length of a school bus. Nearly all sharks are meat-eaters and eat a variety of fish and other sea creatures, big and small; but the whale shark eats mainly tiny plankton and other small prey. A shark's eating habits determine the shape and size of its teeth.

Few other animals on Earth are feared as much as sharks. In reality, the number of people actually attacked by sharks is very small—less than 100 each year. Humans, on the other hand, kill over a million sharks every year and use their parts for a variety of purposes including meat for shark fin soup, shark cartilage as skin replacement for burn victims, and shark skin leather products. A number of species are now endangered.

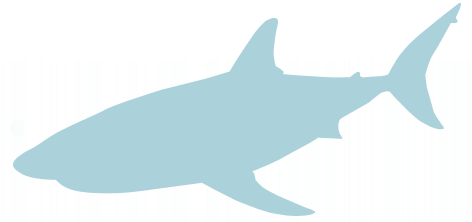
## ACTIVITY

### Shark Teeth

1. Discuss the different kinds of foods that sharks eat and how their anatomy fits the prey they hunt. See the table in this activity for examples. Discuss stereotypes about people's perceptions of sharks.
2. **Cool video option!** Watch the Crittercam segments on the white shark and tiger shark on \*National Geographic's Wild Chronicles Season One Collection. Notice the different kinds of foods the two sharks eat.
3. Give each student a copy of this activity.
4. Students look carefully at the drawings of four kinds of shark teeth and four drawings of sharks accompanied by the foods they eat. Students examine the teeth for features that help capture and eat a particular kind of food, then match each tooth to a shark and its food.
5. Discuss the answers. Can students compare the teeth to different kinds of tools—e.g., a saw or spear or nutcracker?

\* *Wild Chronicles Season One Collection available at <http://shop.nationalgeographic.com>*

## ACTIVITY



### Answers:

- A. The Great White Shark eats large prey ~ A. Large, sharp, triangular tooth; cuts up large prey
- B. The Tiger Shark can saw through turtle shells ~ B. Tooth with serrations on one side; smaller than white shark tooth; saws through turtle shells
- C. The Lemon Shark spears slippery fish ~ C. Long, prong-like tooth; smaller than white shark tooth; spears slippery fish
- D. The Whale Shark feeds on microscopic organisms ~ D. Very tiny, useless tooth; whale shark is a filter-feeder

## FOLLOW-UP ACTIVITIES

### 1 Language Arts:

#### Books About Critters

*The Secret of Shark Reef*, by William Arden—fiction

Publisher: Random House Books for Young Readers

Grades: 4 – 7

Three young sleuths uncover a mystery buried since World War II when they come to the aid of a trouble-plagued environmentalist who is protesting the drilling of off-shore oil wells.

*Shark Tales, Explorer Books*, —nonfiction

Publisher: National Geographic

Grades: 4 – 6

Learn the truth about the different fearsome sharks of the ocean and how people sometimes might be to blame for their attacks.

### 2 Environment:

Students debate the proposition: Sharks should be protected. Assign students different stakeholder roles: e.g., scientist, environmentalist, doctor, restaurateur, fisherman, and beachgoer. Students will research the issue (see three websites about sharks below) looking for information that supports their positions. They will prepare their arguments, then debate the issue.

National Geographic Society

<http://animals.nationalgeographic.com/animals/fish.html>

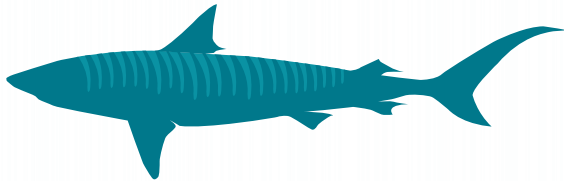
National Marine Fisheries Service, National Oceanic and Atmospheric Administration [www.nmfs.noaa.gov/sharks/](http://www.nmfs.noaa.gov/sharks/)

Department of the Environment and Water Resources, Australia: <http://www.environment.gov.au/coasts/species/sharks/index.html>

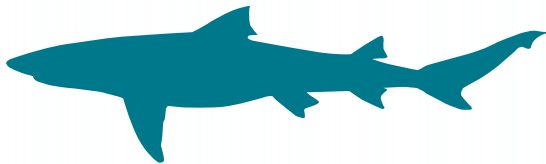


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## Which Tooth Belongs to Which Shark?



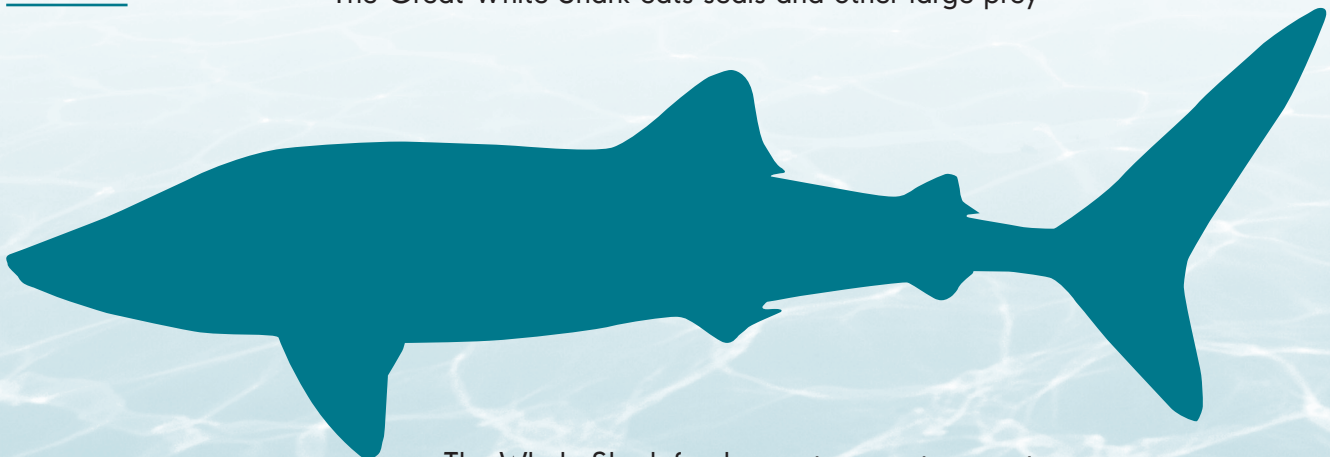
\_\_\_\_\_ The Tiger Shark can saw through turtle shells



\_\_\_\_\_ The Lemon Shark spears slippery fish



\_\_\_\_\_ The Great White Shark eats seals and other large prey



\_\_\_\_\_ The Whale Shark feeds on microscopic organisms

